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Job No.: CTCE/BBMP/W.No.12/BNM/WMM/Gradation/2015-16

10.04.2015

GRADATION FOR WMM
MORTH TABLE-400-11

Client : **Asst. Executive Engineer,** Shettyhalli Sub Division, Dasarahalli Zone, BBMP, Bangalore.

Agency : **Mr. B.N. Manjunath,** Contractor, Bangalore.

Name of Work : Pot holes filling in Shettyhalli & Chikkasandra, in Ward No.12, in Shettyhalli Sub Division, BBMP, Bangalore.

Reference : BBMP/AEE/SSD/DZ/PR/2015-16 Dated: 08.04.2015

Date of Testing : 10.04.2015

Material : WMM

Sample Location : WMM Mix Plant

Oven Dry Wt (gm): **8300**

Is Sieve Size in mm	Weight Retained (gm)	Cumulative Weight Retained (gm)	Cumulative % of Retained	Cumulative % of Passing	Spec.Limits
53	0	0	0	100	100
45	250	250	3.0	97.0	95-100
22.4	2980	3230	38.9	61.1	60-80
11.2	2000	5230	63.0	37.0	40-60
4.75	930	6160	74.2	25.8	25-40
2.36	600	6760	81.4	18.6	15-30
0.600	585	7345	88.5	11.5	8-22
0.075	765	8110	97.7	2.3	0-8

Note:

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Bangalore-560079.

AE-13

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
ಬೃಹತ್ ಬೆಂಗಳೂರು ಮಹಾನಗರ ಪಾಲಿಕೆ

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10.04.2015

Aggregate Impact Value

IS: 2386 Part IV

Client	**Asst. Executive Engineer,** Shettyhalli Sub Division, Dasarahalli Zone, BBMP, Bangalore.
Agency	**Mr. B.N. Manjunath,** Contractor, Bangalore.
Name of the Work	Pot holes filling in Shettyhalli & Chikkasandra, in Ward No.12, in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	BBMP/AEE/SSD/DZ/PR/2015-16 Dated: 08.04.2015
Source / Location	WMM Plant
Type of Mix	Wet Mix macadam
Date of Testing	10.04.2015

Sl No.	Details	Trial No. 1	Trial No. 2	Average
1	Total weight of aggregate sample filling the cylindrical measure = W_1 g	386	387	
2	Weight of agregate passing 2.36 mm sieve after the test = W_2 g	86	87	
3	Weight of aggregate retained 2.36 mm sieve after the test = W_3 g	300	300	
4	Aggregate Impact value = percent fines	22.28	22.48	
	100* (W_2/W_1)%			22.38

Comments:

→ Maximum allowable Aggregate Impact value for Wet mix Macadam is 30%

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AE - 12

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ಶೆಟ್ಟಿಹಳ್ಳಿ ಉಪವಿಭಾಗ, ದಾಸರಹಳ್ಳಿ ವಲಯ
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ಮಾಗಡಿ ರಸ್ತೆ, ರವೀಂದ್ರನಗರ, ಬೆಂಗಳೂರು

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Job No.: CTCE/BBMP/W.No.12/BNM/WMM/S-T/2015-16 10.04.2015

DETERMINATION OF FLAKINESS INDEX & ELONGATION INDEX OF COARSE AGGREGATES

Client	**Asst. Executive Engineer,** Shettyhalli Sub Division, Dasarahalli Zone, BBMP, Bangalore.
Agency	**Mr. B.N. Manjunath,** Contractor, Bangalore.
Name of Work	Pot holes filling in Shettyhalli & Chikkasandra, in Ward No.12, in Shettyhalli Sub Division, BBMP, Bangalore.
Reference	BBMP/AEE/SSD/DZ/PR/2015-16 Dated: 08.04.2015
Technical Reference	IS 2386(Part 1) 1963 (RA 2011)
Type of Mix	Wet Mix Macadam
Date of Testing	10.04.2015

Result : Flakiness Index = **12.35%**

Elongation Index = **13.65%**

Result : Combined Flakiness & Elongation index **26.00%**

Comments:

Maximum allowable Flakiness & Elongation Index for Wet Mix Macadam is 30%

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AE-12

ಸಹಾಯಕ ಕಾರ್ಯಪಾಲಕ ಅಭಿಯಂತರರು
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JobNo: CTCE/BBMP/W.No.12/BNM/BC/Bitumen/2015-16

20.04.2015

BITUMEN CONTENT DETERMINATION OF BITUMINOUS CONCRETE MIX

As per IRC:SP:11-1984

CLIENT	**Asst. Executive Engineer,** Shettyhalli Sub Division, Dasarahalli Zone, BBMP, Bangalore.
AGENCY	**Mr. B.N. Manjunath,** Contractor, Bangalore.
NAME OF THE WORK	Pot holes filling in Shettyhalli & Chikkasandra, in Ward No.12, in Shettyhalli Sub Division, BBMP, Bangalore.
REFERENCE	BBMP/AEE/SSD/DZ/PR/2015-16 Dated: 08.04.2015
SAMPLE I/D	Road cutting portion in Shettyhalli & Chikkasandra Ward No.12, BBMP, Bangalore.
DATE OF TESTING	20.04.2015

BITUMEN CONTENT DETERMINATION

Description	Trail 1	Trail 2
1. Weight of Mixture before Test, g	500	500
2. Weight of Mixture after Test, g	475	472
3. Weight of Asphalt and Mineral matter Extracted, g	-	-
4. Weight of Mineral Matter, g.	-	-
5. Weight of Ash, g		
6. Weight of Bitumen Extracted, g. (corrected)	25	28.00
7. Bitumen content in %	5.00	5.60
8. Average	**5.30**	

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W-12

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BITUMEN CONTENT AFTER GRADATION DETERMINATION OF BITUMINOUS CONCRETE MIX

As Per IS 2386 and IRC:SP:11-1984

CLIENT	**Asst. Executive Engineer,** Shettyhalli Sub Division, Dasarahalli Zone, BBMP, Bangalore.
AGENCY	**Mr. B.N. Manjunath,** Contractor, Bangalore.
NAME OF THE WORK	Pot holes filling in Shettyhalli & Chikkasandra, in Ward No.12, in Shettyhalli Sub Division, BBMP, Bangalore.
REFERENCE	BBMP/AEE/SSD/DZ/PR/2015-16 Dated: 08.04.2015
SAMPLE I/D	Road cutting portion in Shettyhalli & Chikkasandra Ward No.12, BBMP, Bangalore.
DATE OF TESTING	20.04.2015

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GRADATION AFTER EXTRACTION

Sieve Size in mm	Trail 1				Specified Limits as per MORTH specification table 500-18 (Grading-2)
	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	
19	0	0	0	100	100
13.2	46.33	9.75	9.75	90.25	79-100
9.5	35.25	7.42	17.17	82.83	70-88
4.75	65.58	13.81	30.98	69.02	53-71
2.36	69.63	14.66	45.64	54.36	42-58
1.18	52.32	11.01	56.65	43.35	34-48
0.6	65.32	13.75	70.41	29.59	26-38
0.3	46.25	9.74	80.14	19.86	18-28
0.15	32.52	6.85	86.99	13.01	12-20
0.075	30.25	6.37	93.36	6.64	4-10

Sieve Size in mm	Trail 2				Specified Limits as per MORTH specification table 500-18 (Grading-2)
	Weight Retained, gm	% Retained	%Cummulative Retained	% Passing	
19	0	0	0	100	100
13.2	32.52	6.89	6.89	93.11	79-100
9.5	49.65	10.52	17.41	82.59	70-88
4.75	76.52	16.21	33.62	66.38	53-71
2.36	68.25	14.46	48.08	51.92	42-58
1.18	72.27	15.31	63.39	36.61	34-48
0.6	40.33	8.54	71.94	28.06	26-38
0.3	36.25	7.68	79.62	20.38	18-28
0.15	31.25	6.62	86.24	13.76	12-20
0.075	32.25	6.83	93.07	6.93	4-10

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